Call Letters	City	State	Dist	Bear
W13CC (13-)	Savannah	GA	307.3	213.6
WCTITV (12+)	New Bern	NC	199.4	65.2
WLOS (13-)	Asheville	NC	335.1	291.5
WUBX-L (13Z)	Durham, Etc.	NC	192.5	11.7
W13CI (13Z)	Raleigh	NC	166.6	18.8
WVECTV.C (13-)	Hampton	VA	375.1	42.8
WVECTV (13-)	Hampton	VA	375.1	42.8
WSETTV (13Z)	Lynchburg	VA	328.2	355.2
WVAN-DT PFRM (13)	Savannah	GA	326.1	221.6

Totals for WBTW (13+)

Calculation Area Population:	1,461,419	(44857.2	sq. km)
Not Affected by Terrain Loss:	1,432,188	(43456.2	sq. km)
Total NTSC Interference:	135,126	(4452.7	sq. km)
DTV Only Interference:	0	(-0.0	sq. km)
Total DTV Interference:	0	(0.0	sq. km)
Interfered Population:	135,126	(4452.7	sq. km)
Interference Free:	1,297,062	(39003.5	sq. km)
Percent Interference:	9.24		
Terrain Blocked Population:	29,231	(1401.1	sq. km)
Contour Area Population:	1,461,928		

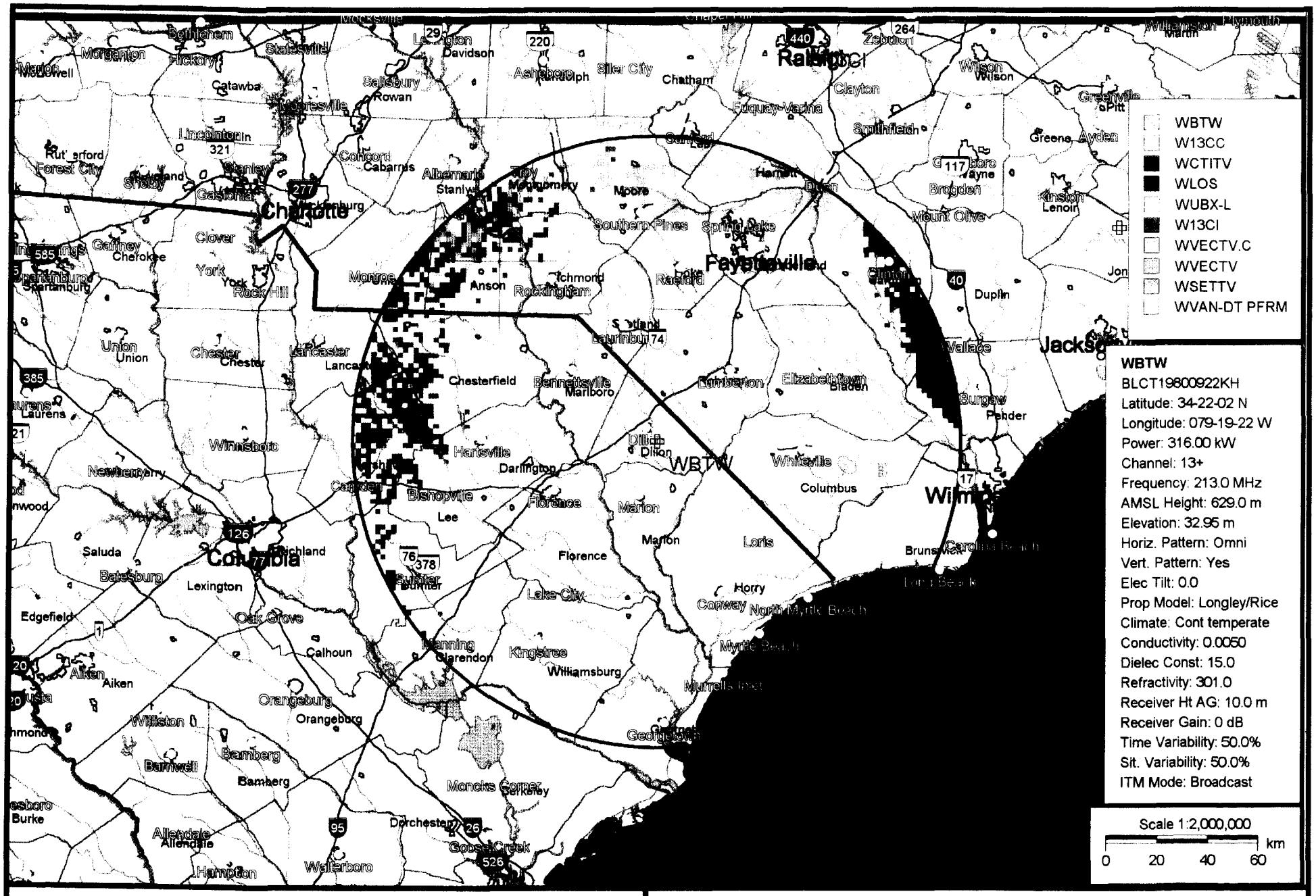

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EXHIBIT 22

V-Soft Communications Population Report

WBTW (13+) Florence, SC
TV Incoming Interference Study
Signal Resolution: 2 km
Consider NTSC Taboo: Yes
KWX error points are considered to be interference free coverage.
# of radials computed for contours: 72
Contours calculated using 8 radial HAAT.
LR Profile Spacing Increment: 1.0 km
Interference considered within the reference station's noise limited contour.
Using NTSC lptv/translators D/U rules.
Threshold for reception: 56.0

Study Date: 1/30/01

Percentages calculated using a baseline population of 1,461,928.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
WCTITV (12+)	7867	19221	1.315	894.80
WLOS (13-)	20600	54323	3.716	2436.92
WUBX-L (13Z)	41	108	0.007	3.98
WVECTV.C (13-)	3344	10096	0.691	143.73
WSETTV (13Z)	24551	73766	5.046	1860.22
WVAN-DT PFRM (13)	594	1402	0.096	32.44

Masking Summary:

	Total Interference		Unique Interference	
Call Letters	Population	%	Population	%
WCTITV (12+)	19221	1.315	17150	1.173
WLOS (13-)	54323	3.716	42885	2.933
WUBX-L (13Z)	108	0.007	0	0.000
WVECTV.C (13-)	10096	0.691	11	0.001
WSETTV (13Z)	73766	5.046	52908	3.619
WVAN-DT PFRM (13)	1402	0.096	279	0.019

Stations considered which do not cause interference:

W13CC (13-)
W13CI (13Z)

Stations which were not considered:

WVECTV (13-)

Call Letters	City	State	Dist	Bear
W13CC (13-)	Savannah	GA	307.3	213.6
WCTITV (12+)	New Bern	NC	199.4	65.2
WLOS (13-)	Asheville	NC	335.1	291.5
WUBX-L (13Z)	Durham, Etc.	NC	192.5	11.7
W13CI (13Z)	Raleigh	NC	166.6	18.8
WVECTV.C (13-)	Hampton	VA	375.1	42.8
WVECTV (13-)	Hampton	VA	375.1	42.8
WSETTV (13Z)	Lynchburg	VA	328.2	355.2
WVAN-DT PFRM (13)	Savannah	GA	326.1	221.6

Totals for WBTW (13+)

Calculation Area Population:	1,461,419	(44857.2	sq. km)
Not Affected by Terrain Loss:	1,432,188	(43456.2	sq. km)
Total NTSC Interference:	135,126	(4452.7	sq. km)
DTV Only Interference:	279	(12.2	sq. km)
Total DTV Interference:	1,402	(32.4	sq. km)
Interfered Population:	135,405	(4464.9	sq. km)
Interference Free:	1,296,783	(38991.3	sq. km)
Percent Interference:	9.26		
Terrain Blocked Population:	29,231	(1401.1	sq. km)
Contour Area Population:	1,461,928		

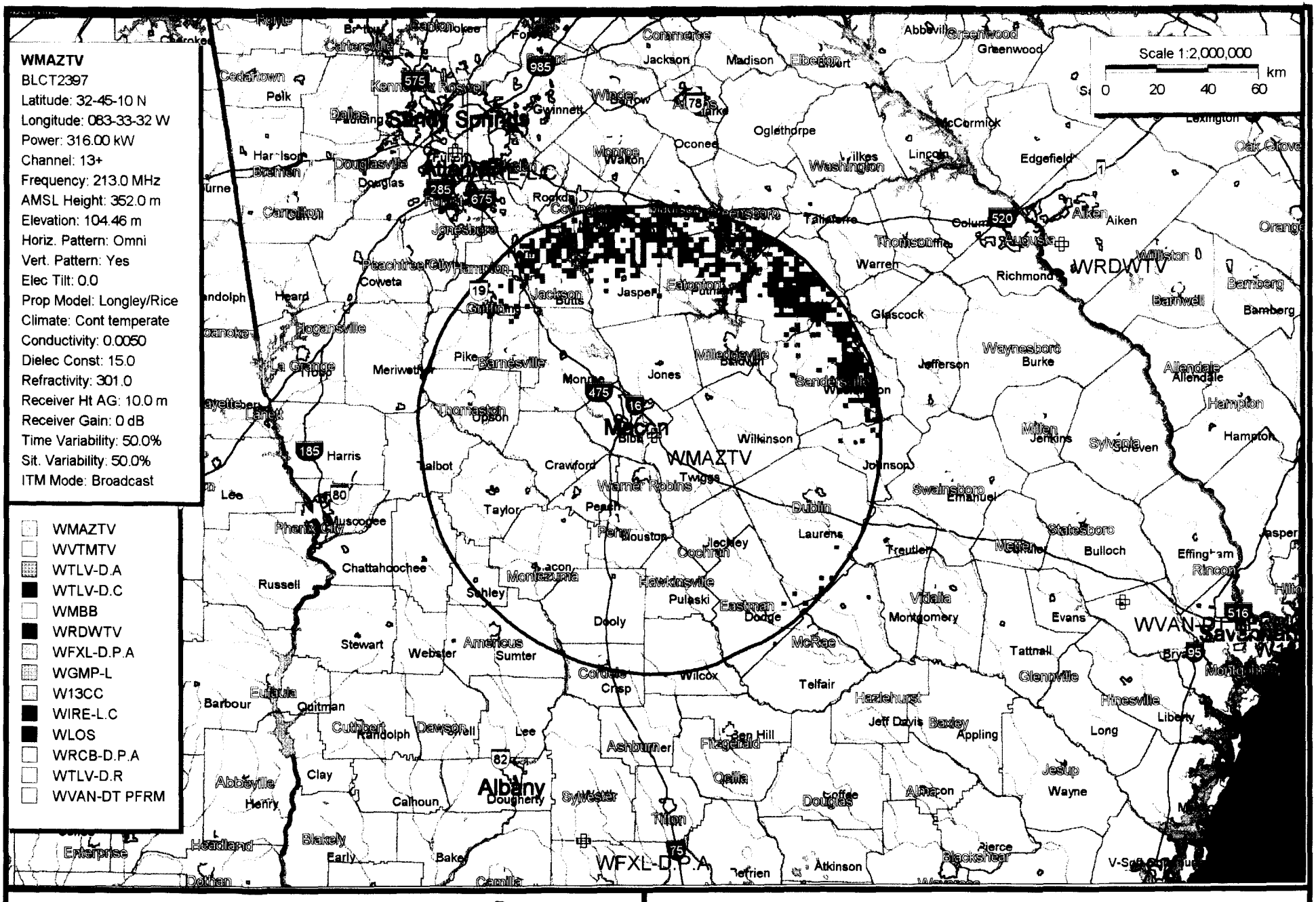

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EXHIBIT 23

V-Soft Communications Population Report

WMAZTV (13+) Macon, GA
TV Incoming Interference Study
Signal Resolution: 2 km
Consider NTSC Taboo: Yes
KWX error points are considered to be interference free coverage.
# of radials computed for contours: 72
Contours calculated using 8 radial HAAT.
LR Profile Spacing Increment: 1.0 km
Interference considered within the reference station's noise limited contour.
Using NTSC lptv/translators D/U rules.
Threshold for reception: 56.0

Study Date: 1/30/01

Percentages calculated using a baseline population of 678,143.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
WVTMTV (13-)	4766	13165	1.941	532.91
WTLV-D.C (13)	83	169	0.025	33.04
WMBB (13Z)	9167	22639	3.338	1206.60
WRDWTV (12-)	935	2544	0.375	290.66
WLOS (13-)	13885	35825	5.283	2330.04
WRCB-D.P.A (13)	3276	9281	1.369	216.18

Masking Summary:

	Total Interference		Unique Interference	
Call Letters	Population	%	Population	%
WVTMTV (13-)	13165	1.941	1949	0.287
WTLV-D.C (13)	169	0.025	169	0.025
WMBB (13Z)	22639	3.338	21953	3.237
WRDWTV (12-)	2544	0.375	56	0.008
WLOS (13-)	35825	5.283	23043	3.398
WRCB-D.P.A (13)	9281	1.369	519	0.077

Stations considered which do not cause interference:

WFXL-D.P.A (12)
WGMP-L (13-)
W13CC (13-)
WIRE-L.C (13Z)

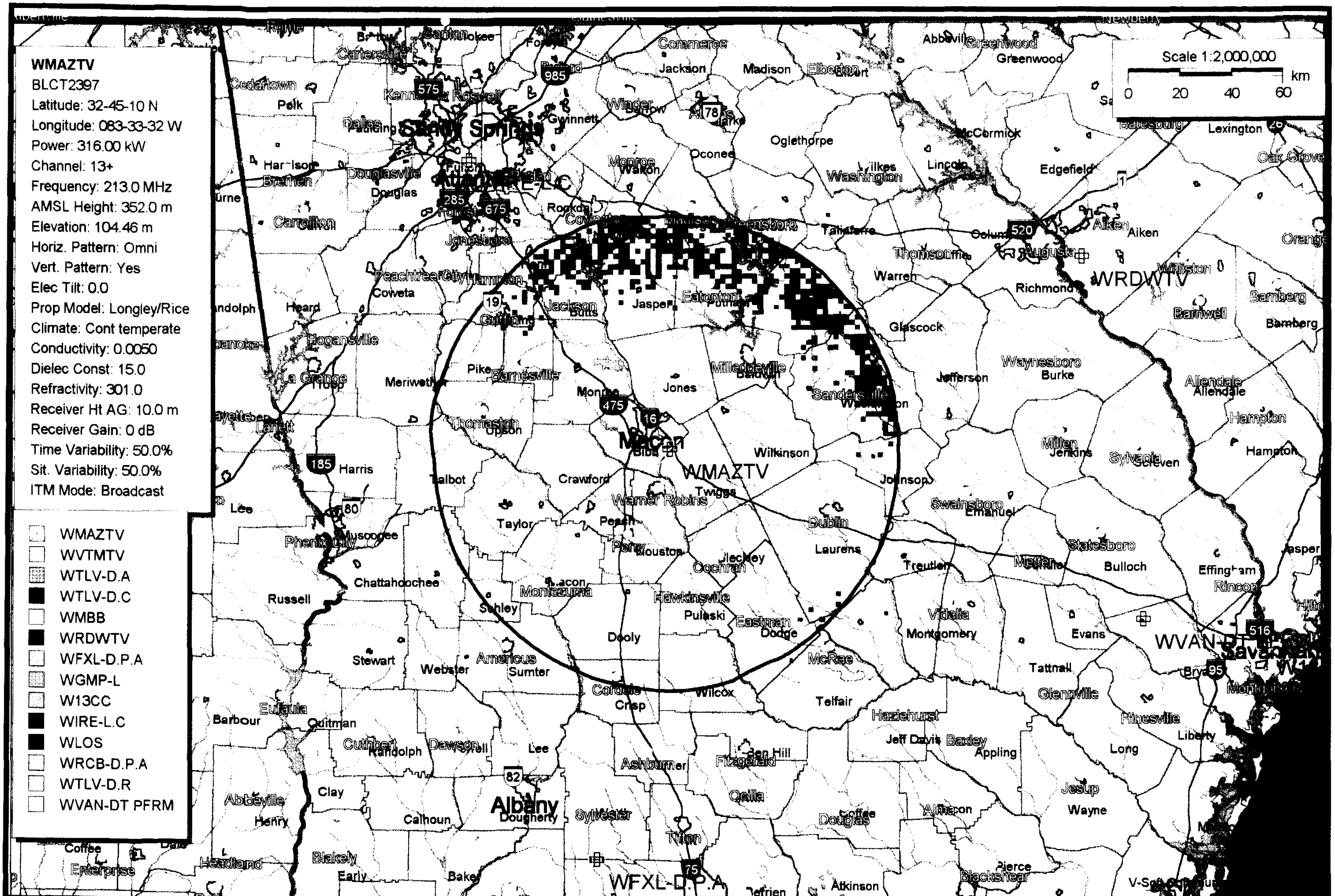
Stations which were not considered:

WTLV-D.A (13)
WTLV-D.R (13)
WVAN-DT PFRM (13)

Call Letters	City	State	Dist	Bear
WVTMTV (13-)	Birmingham	AL	313.0	286.0
WTLV-D.A (13)	Jacksonville	FL	334.4	144.8
WTLV-D.C (13)	Jacksonville	FL	334.4	144.8
WMBB (13Z)	Panama City	FL	317.9	213.6
WRDWTV (12-)	Augusta	GA	175.9	65.1
WFXL-D.P.A (12)	Albany	GA	160.2	190.4
WGMP-L (13-)	Valdosta	GA	213.3	173.5
W13CC (13-)	Savannah	GA	242.2	108.2
WIRE-L.C (13Z)	Atlanta	GA	135.4	325.3
WLOS (13-)	Asheville	NC	305.5	13.8
WRCB-D.P.A (13)	Chattanooga	TN	312.5	329.2
WTLV-D.R (13)	JACKSONVILLE	FL	334.4	144.8
WVAN-DT PFRM (13)	Savannah	GA	194.5	109.7

Totals for WMAZTV (13+)

Calculation Area Population:	678,238	(25921.6	sq. km)
Not Affected by Terrain Loss:	658,702	(24480.4	sq. km)
Total NTSC Interference:	62,436	(3749.6	sq. km)
DTV Only Interference:	688	(65.7	sq. km)
Total DTV Interference:	9,450	(249.2	sq. km)
Interfered Population:	63,124	(3815.4	sq. km)
Interference Free:	595,578	(20665.0	sq. km)
Percent Interference:	9.31		
Terrain Blocked Population:	19,536	(1441.2	sq. km)
Contour Area Population:	678,143		



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WVAN-DT CHANNEL 13

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EXHIBIT 24

V-Soft Communications Population Report

WMAZTV (13+) Macon, GA
TV Incoming Interference Study
Signal Resolution: 2 km
Consider NTSC Taboo: Yes
KWX error points are considered to be interference free coverage.
# of radials computed for contours: 72
Contours calculated using 8 radial HAAT.
LR Profile Spacing Increment: 1.0 km
Interference considered within the reference station's noise limited contour.
Using NTSC lptv/translators D/U rules.
Threshold for reception: 56.0
Study Date: 1/30/01

Percentages calculated using a baseline population of 678,143.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
WVTMTV (13-)	4766	13165	1.941	532.91
WTLV-D.C (13)	83	169	0.025	33.04
WMBB (13Z)	9167	22639	3.338	1206.60
WRDWTV (12-)	935	2544	0.375	290.66
WLOS (13-)	13885	35825	5.283	2330.04
WRCB-D.P.A (13)	3276	9281	1.369	216.18
WVAN-DT PFRM (13)	299	723	0.107	140.08

Masking Summary:

	Total Interference		Unique Interference	
Call Letters	Population	%	Population	%
WVTMTV (13-)	13165	1.941	1949	0.287
WTLV-D.C (13)	169	0.025	159	0.023
WMBB (13Z)	22639	3.338	21944	3.236
WRDWTV (12-)	2544	0.375	56	0.008
WLOS (13-)	35825	5.283	22963	3.386
WRCB-D.P.A (13)	9281	1.369	519	0.077
WVAN-DT PFRM (13)	723	0.107	599	0.088

Stations considered which do not cause interference:

WFXL-D.P.A (12)
WGMP-L (13-)
W13CC (13-)
WIRE-L.C (13Z)

Stations which were not considered:

WTLV-D.A (13)
WTLV-D.R (13)

Call Letters	City	State	Dist	Bear
WVTMTV (13-)	Birmingham	AL	313.0	286.0
WTLV-D.A (13)	Jacksonville	FL	334.4	144.8
WTLV-D.C (13)	Jacksonville	FL	334.4	144.8
WMBB (13Z)	Panama City	FL	317.9	213.6
WRDWTV (12-)	Augusta	GA	175.9	65.1
WFXL-D.P.A (12)	Albany	GA	160.2	190.4
WGMP-L (13-)	Valdosta	GA	213.3	173.5
W13CC (13-)	Savannah	GA	242.2	108.2
WIRE-L.C (13Z)	Atlanta	GA	135.4	325.3
WLOS (13-)	Asheville	NC	305.5	13.8
WRCB-D.P.A (13)	Chattanooga	TN	312.5	329.2
WTLV-D.R (13)	JACKSONVILLE	FL	334.4	144.8
WVAN-DT PFRM (13)	Savannah	GA	194.5	109.7

Totals for WMAZTV (13+)

Calculation Area Population:	678,238	(25921.6 sq. km)
Not Affected by Terrain Loss:	658,702	(24480.4 sq. km)
Total NTSC Interference:	62,436	(3749.6 sq. km)
DTV Only Interference:	1,287	(172.9 sq. km)
Total DTV Interference:	10,163	(376.9 sq. km)
Interfered Population:	63,723	(3922.5 sq. km)
Interference Free:	594,979	(20557.9 sq. km)
Percent Interference:	9.40	
Terrain Blocked Population:	19,536	(1441.2 sq. km)
Contour Area Population:	678,143	

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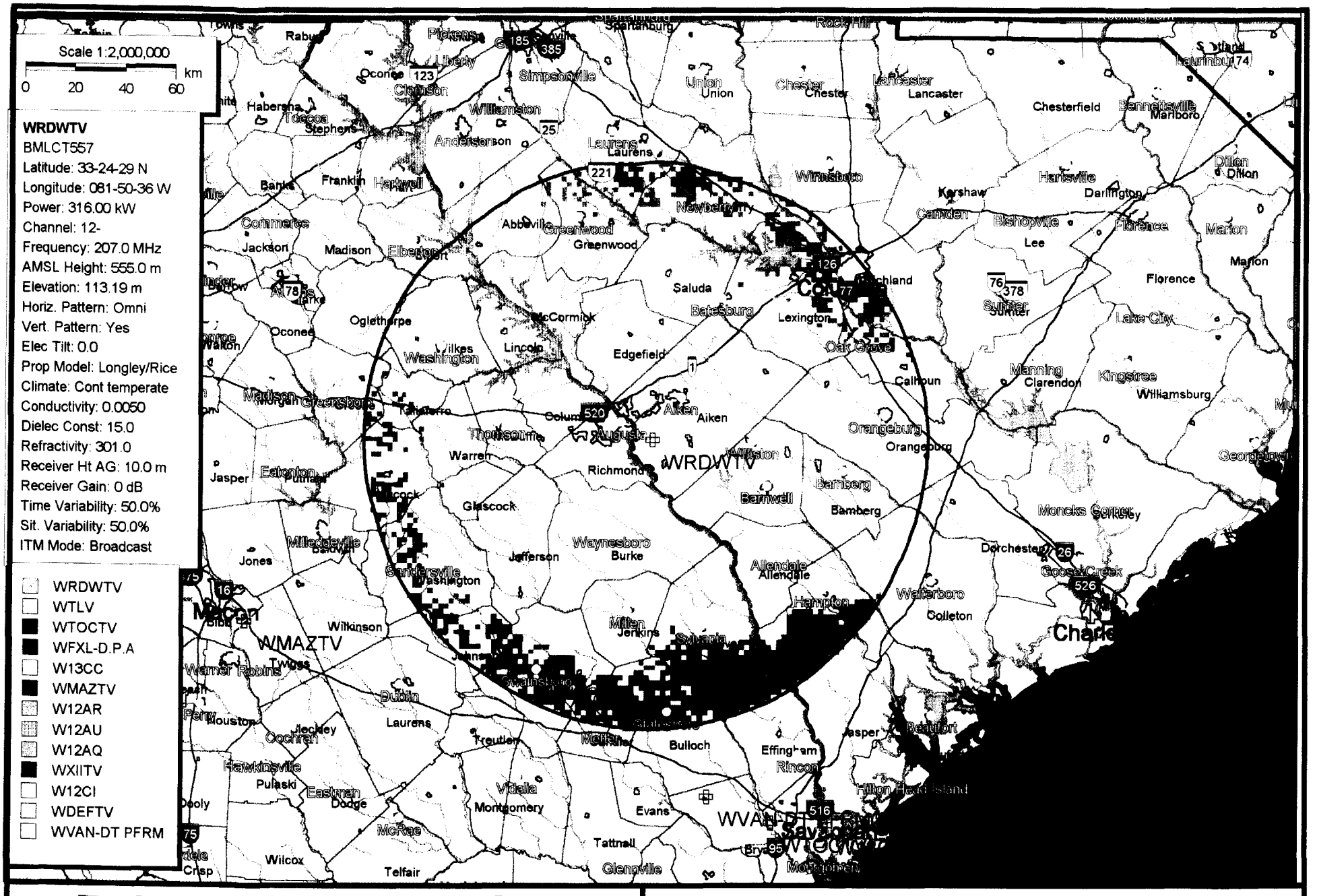
20010130 EXHIBIT 24A



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WVAN-DT CHANNEL 13

SAVANNAH, GA

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EXHIBIT 25

V-Soft Communications Population Report

WRDWTV (12-) Augusta, GA
TV Incoming Interference Study
Signal Resolution: 2 km
Consider NTSC Taboo: Yes
KWX error points are considered to be interference free coverage.
# of radials computed for contours: 72
Contours calculated using 8 radial HAAT.
LR Profile Spacing Increment: 1.0 km
Interference considered within the reference station's noise limited contour.
Using NTSC lptv/translators D/U rules.
Threshold for reception: 56.0

Study Date: 1/30/01

Percentages calculated using a baseline population of 1,232,037.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
WTLV (12+)	11466	30980	2.515	1296.73
WTOCTV (11Z)	19061	49548	4.022	2632.53
WFXL-D.P.A (12)	17084	45289	3.676	1988.16
WMAZTV (13+)	559	1610	0.131	180.28
WXIITV (12Z)	69286	179244	14.549	1370.66
WDEFTV (12+)	626	1534	0.125	198.93

Masking Summary:

	Total Interference		Unique Interference	
Call Letters	Population	%	Population	%
WTLV (12+)	30980	2.515	278	0.023
WTOCTV (11Z)	49548	4.022	21834	1.772
WFXL-D.P.A (12)	45289	3.676	14608	1.186
WMAZTV (13+)	1610	0.131	16	0.001
WXIITV (12Z)	179244	14.549	179244	14.549
WDEFTV (12+)	1534	0.125	767	0.062

Stations considered which do not cause interference:

W13CC (13-)
W12AR (12N)
W12AU (12N)
W12AQ (12N)
W12CI (12N)

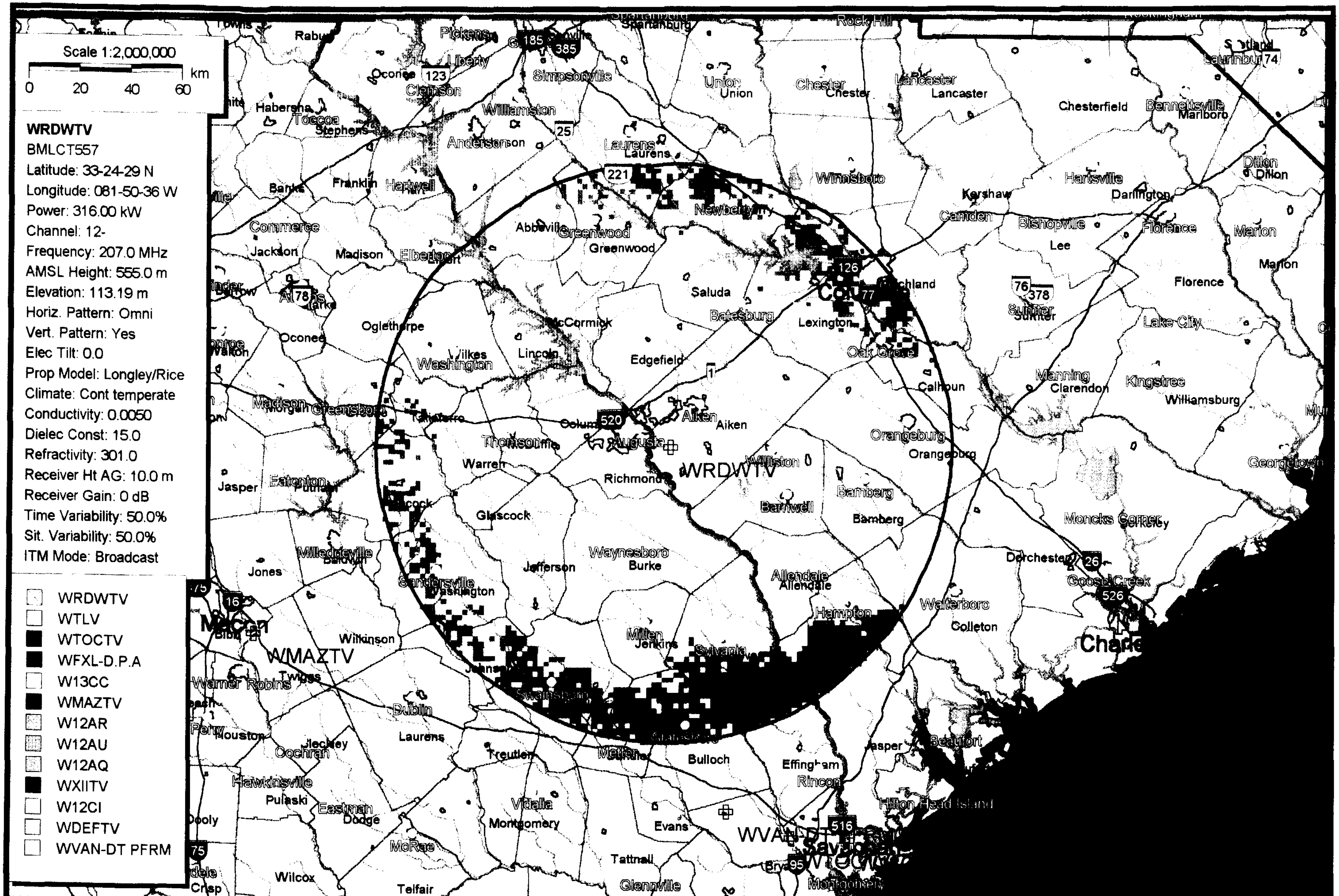
Stations which were not considered:

WVAN-DT PFRM (13)

Call Letters	City	State	Dist	Bear
WTLV (12+)	Jacksonville	FL	348.6	175.4
WTOCTV (11Z)	Savannah	GA	157.1	162.8
WFXL-D.P.A (12)	Albany	GA	298.5	220.1
W13CC (13-)	Savannah	GA	165.5	155.7
WMAZTV (13+)	Macon	GA	175.9	246.1
W12AR (12N)	Waynesville, Etc..	NC	255.2	334.9
W12AU (12N)	Burnsville	NC	283.6	351.7
W12AQ (12N)	Black Mountain	NC	249.5	349.5
WXIITV (12Z)	Winston-salem	NC	355.5	21.8
W12CI (12N)	Hot Springs	NC	293.0	342.7
WDEFTV (12+)	Chattanooga	TN	373.3	301.8
WVAN-DT PFRM (13)	Savannah	GA	141.5	171.4

Totals for WRDWTV (12-)

Calculation Area Population:	1,235,002	(38567.7	sq. km)
Not Affected by Terrain Loss:	1,191,752	(36888.5	sq. km)
Total NTSC Interference:	236,026	(4715.6	sq. km)
DTV Only Interference:	14,608	(729.7	sq. km)
Total DTV Interference:	45,289	(1988.2	sq. km)
Interfered Population:	250,634	(5445.3	sq. km)
Interference Free:	941,118	(31443.2	sq. km)
Percent Interference:	20.34		
Terrain Blocked Population:	43,250	(1679.1	sq. km)
Contour Area Population:	1,232,037		



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WVAN-DT CHANNEL 13

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20010130

EXHIBIT 26

V-Soft Communications Population Report

WRDWTV (12-) Augusta, GA
TV Incoming Interference Study
Signal Resolution: 2 km
Consider NTSC Taboo: Yes
KWX error points are considered to be interference free coverage.
# of radials computed for contours: 72
Contours calculated using 8 radial HAAT.
LR Profile Spacing Increment: 1.0 km
Interference considered within the reference station's noise limited contour.
Using NTSC lptv/translators D/U rules.
Threshold for reception: 56.0

Study Date: 1/30/01

Percentages calculated using a baseline population of 1,232,037.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
WTLV (12+)	11466	30980	2.515	1296.73
WTOCTV (11Z)	19061	49548	4.022	2632.53
WFXL-D.P.A (12)	17084	45289	3.676	1988.16
WMAZTV (13+)	559	1610	0.131	180.28
WXIITV (12Z)	69286	179244	14.549	1370.66
WDEFTV (12+)	626	1534	0.125	198.93
WVAN-DT PFRM (13)	93	234	0.019	45.32

Masking Summary:

	Total Interference		Unique Interference	
Call Letters	Population	%	Population	%
WTLV (12+)	30980	2.515	278	0.023
WTOCTV (11Z)	49548	4.022	21834	1.772
WFXL-D.P.A (12)	45289	3.676	14608	1.186
WMAZTV (13+)	1610	0.131	16	0.001
WXIITV (12Z)	179244	14.549	179244	14.549
WDEFTV (12+)	1534	0.125	767	0.062
WVAN-DT PFRM (13)	234	0.019	0	0.000

Stations considered which do not cause interference:

W13CC (13-)
W12AR (12N)
W12AU (12N)
W12AQ (12N)
W12CI (12N)

Call Letters	City	State	Dist	Bear
WTLV (12+)	Jacksonville	FL	348.6	175.4
WTOCTV (11Z)	Savannah	GA	157.1	162.8
WFXL-D.P.A (12)	Albany	GA	298.5	220.1
W13CC (13-)	Savannah	GA	165.5	155.7
WMAZTV (13+)	Macon	GA	175.9	246.1
W12AR (12N)	Waynesville, Etc..	NC	255.2	334.9
W12AU (12N)	Burnsville	NC	283.6	351.7
W12AQ (12N)	Black Mountain	NC	249.5	349.5
WXIITV (12Z)	Winston-salem	NC	355.5	21.8
W12CI (12N)	Hot Springs	NC	293.0	342.7
WDEFTV (12+)	Chattanooga	TN	373.3	301.8
WVAN-DT PFRM (13)	Savannah	GA	141.5	171.4

Totals for WRDWTV (12-)

Calculation Area Population:	1,235,002	(38567.7	sq. km)
Not Affected by Terrain Loss:	1,191,752	(36888.5	sq. km)
Total NTSC Interference:	236,026	(4715.6	sq. km)
DTV Only Interference:	14,608	(729.7	sq. km)
Total DTV Interference:	45,423	(1992.3	sq. km)
Interfered Population:	250,634	(5445.3	sq. km)
Interference Free:	941,118	(31443.2	sq. km)
Percent Interference:	20.34		
Terrain Blocked Population:	43,250	(1679.1	sq. km)
Contour Area Population:	1,232,037		

Exhibit D

DTV PFRM APPLICATION AND VHF INTERFERENCE STUDIES FOR THE DIGITAL TELEVISION BROADCAST STATION WXGA-DT TO OPERATE ON DTV CHANNEL 9 WITH AN ERP OF 20 KW AT AN ANTENNA HEIGHT RADIATION CENTER OF 286.3 METERS ABOVE AVERAGE TERRAIN WAYCROSS, GEORGIA

(GEORGIA PUBLIC TELECOMMUNICATIONS COMMISSION)

KESSLER & GEHMAN ASSOCIATES, INC.
TELECOMMUNICATIONS CONSULTING ENGINEERS

KGA

20010126

Prepared by William T. Godfrey

507 N.W. 60th Street, Suite C
Gainesville, Florida 32607

ENGINEERING TECHNICAL STATEMENT PREPARED BY WILLIAM T. GODFREY OF THE FIRM KESSLER AND GEHMAN ASSOCIATES, INC., TELECOMMUNICATIONS CONSULTING ENGINEERS IN CONNECTION WITH THE GEORGIA PUBLIC TELECOMMUNICATIONS COMMISSION'S (GPTC) DTV APPLICATION FOR A CONSTRUCTION PERMIT IN SUPPORT OF THE WXGA-DT PETITION FOR RULE MAKING WHICH SEEKS AUTHORIZATION TO AMEND THE DTV TABLE OF ALLOTMENTS IN ORDER TO SUBSTITUTE THE PROPOSED DTV VHF CHANNEL 9 FOR THE ALLOTTED DTV UHF CHANNEL 18 AT THE LICENSED SITE LOCATED IN MILLWOOD, GEORGIA.

The firm Kessler and Gehman Associates, Inc., has been retained by the Georgia Public Telecommunications Commission (GPTC), Atlanta, Georgia in order to prepare engineering studies and the engineering portion of a digital television (DTV) application for a construction permit in support of the WXGA-DT Petition for Rule Making (PFRM) which respectfully requests and seeks authorization for an amendment of the DTV Table of Allotments by substituting the proposed DTV VHF Channel 9 for the allotted DTV UHF Channel 18 at the licensed site located in Millwood, GA.

Discussion

The GPTC is the licensee of nine NTSC broadcast stations and has been assigned a paired DTV channel for each of the nine stations. The enclosed WXGA-DT application for the GPTC is just one of six PFRM applications requesting a change from its assigned UHF channel to a desired VHF channel. Kessler and Gehman Associates, Inc. initially conducted a detailed spacing study and determined that two of the nine GPTC stations presently would not be able to convert to VHF without causing above *de minimis*[1] interference to one or more applicable surrounding station(s). Of the nine DTV channels allotted to the GPTC, one station was assigned a VHF channel. Therefore, the GPTC is requesting a "Fleet VHF Conversion" of six of its nine broadcast stations in order to utilize improved signal coverage, heavily reduce support structure upgrade expenses, save on equipment and operational costs and continue digital VHF operation on the proposed channels after the DTV transition has ceased.

Authorization of the "Fleet VHF conversion" will equip the GPTC with seven VHF stations and will serve the public interest significantly with huge savings in tax dollars ranging from the substantial amount of money saved during the DTV purchasing/building phase to the magnitude of electrical savings that low power VHF transmitters offer over high power UHF transmitters. Conversion of the two remaining UHF channels to VHF shall be pursued after the DTV transition when spectrum becomes available so that the GPTC can simulcast efficiently on all nine VHF stations to the entire state of Georgia and beyond.

The objective of the enclosed DTV PFRM application is to amend the DTV Table of Allotments as follows: (1) substitute DTV Channel 9 for assigned DTV Channel 18; (2) change effective radiated power (ERP) from assigned 531.9kW to 20kW using a nondirectional antenna (omni); and (3) change the antenna radiation center (R/C) height above average terrain (HAAT) from the assigned 314.0 meters to 286.3 meters.

[1] *De minimis* interference is defined as interference to such stations affecting less than two percent of the population they serve. Where a station is receiving interference to between eight and ten percent of the population it would otherwise serve, additional interference is considered *de minimis* if it does not cause interference to the station to exceed the ten-percent threshold.

The GPTC is licensed to operate WXGA-TV on VHF, NTSC Channel 8(+) with an ERP of 316kW at an antenna height R/C of 314.0 meters AAT using a nondirectional antenna. The assigned principal community for WXGA is Waycross, Georgia and the file number for WXGA-TV is BLCT-1161.

According to the initial allotment plan and reference coordinates (DTV Table of Allotments) set forth in Appendix B of the *Sixth Report and Order* in MM Docket 87-268, FCC 97-115, adopted April 3, 1997, WXGA is allotted UHF, DTV Channel 18 at an antenna height R/C of 314.0 meters AAT and an ERP of 531.9kW in order to replicate its licensed VHF, Channel 8 Grade B Contour.

The GPTC has a construction permit for DTV Channel 18 (file number BPEDT-200000425AAS), which authorizes WXGA to operate with an ERP of 952.8kW at an antenna height radiation of 288.0 meters AAT using a directional antenna (peanut). Specifically, the GPTC requests authorization to substitute WXGA-DT Channel 9 in lieu of the WXGA-DT Channel 18 construction permit, and to take any other steps necessary to enable WXGA to construct and ultimately operate its digital facilities on Channel 9.

Transmitter

It is proposed to side-mount a Dielectric model THV-13A9-R 04 circularly polarized, nondirectional (omni), VHF, DTV antenna on the existing WXGA-TV support structure owned by the GPTC. The tower is registered with the FCC and has a registration number of 1018780. The support structure is located at 6433 TV Tower Road in Millwood, GA. The antenna height radiation center is 287.1 meters above ground level (AGL). The antenna's highest point will extend to 298.4 meters AGL and the overall height of the structure will extend to 331.9 meters AGL as depicted in Exhibit 3's elevation view of the support structure

Interference Studies

The enclosed interference studies were computed using a Pentium Pro, 300 MHz, 128-megabyte, Pentium II processor. The calculations were performed using V-Soft Communication's Probe II, professional signal propagation software and interference studies program, which complies with the FCC mandated application-processing guidelines for digital television. This software is in accordance with the standards established in the FCC Public Notice #3060-0841 pertaining to DTV studies and DTV application preparation dated August 10, 1998.

Initial spacing studies, which considered DTV allotments (allot), DTV/NTSC licenses (lic), DTV/NTSC construction permits (cp), DTV/NTSC applications (app) and Class A/Class A-eligible low power television (LPTV) stations in the applicable areas surrounding Millwood, GA revealed that VHF Channel 9 was a possible option for the GPTC station. After the spacing studies were completed additional studies were conducted to verify that the proposed station met the principal community coverage requirements of §73.625(a) in the Federal Communications Commission's (FCC) rules. Exhibit 11 depicts the proposed WXGA-DT F(50,90) 36dBuV/m noise limited contour and verifies that the proposed station's noise limited contour fully encompasses the assigned principal community of Waycross, GA. After it was determined that the principal community coverage requirement was met, we performed detailed interference studies on all applicable surrounding stations using the terrain dependent Longley-Rice, point-to-point propagation algorithm detailed in the FCC's Office of Engineering and Technology Bulletin Number 69 (OET 69).

The initial interference studies predicted that the proposed WXGA-DT may cause interference to the stations listed below (Exhibit 12) and therefore, are the stations we performed detailed interference studies on to verify that all interference remains within the *de minimis* standard:

- WTVM-TV (LIC)
- WVAN-TV (LIC)
- W09CF (Class A eligible)
- WFTV-TV (LIC)
- WALB-TV (LIC)
- WPGX-DT (PFRM)
- WACX-LP (Class A eligible)

Exhibit 12 is a pictorial view of all applicable surrounding stations that are predicted to receive interference from WXGA-DT using the proposed azimuth pattern with an ERP of 20kW at an antenna R/C HAAT of 286.3 meters. Exhibit 12A is a tabular exhibit which identifies the potential stations that may receive interference from the proposed WXGA-DT, including Class A and Class A eligible LPTV stations. Since this study did not take masking into account, each station was studied in detail in order to determine the exact amount of *unique interference*[2] caused to each station from the proposed WXGA-DT.

NOTE: Starting from Exhibit 12, each pictorial exhibit will also be followed by a tabulation exhibit (except for exhibit 27). For example, Exhibit 15 will be a pictorial exhibit and Exhibit 15A will be a tabulation exhibit.

Exhibits 13 and 14 are studies showing interference from all stations to the WTVM-TV (LIC) station without and with WXGA-DT respectively. Exhibit 13 shows that without WXGA-DT, populations of 26,441 people are receiving DTV only interference and the interference free population is 700,706. Exhibit 14 shows that with WXGA-DT, populations of 28,302 people are receiving DTV only interference and the interference free population is 698,845. Therefore, the proposed WXGA-DT causes [700,706 (IX free without WXGA-DT) – 698,845 (IX free with WXGA-DT) = 1,861] interference to a total of 1,861 people. Exhibits 13 and 14 calculated the WXGA-TV baseline population to be 959,424. Therefore, the total amount of unique interference caused by the proposed WXGA-DT is [1,861/959,424] 0.19% ≤ 2.0% and thus, all requirements under the definition of *de minimis* have been met. Exhibit 14 concludes that the total interference caused to WTVM-TV from all stations including WXGA-DT is [28,302/959,424] 2.95% ≤ 10% and thus, all requirements under the definition of the *10% de-minimis* standard have been met.

Exhibits 15 and 16 are studies showing interference from all stations to the WVAN-TV GPTC station without and with WXGA-DT respectively. Exhibit 15 shows that without WXGA-DT, populations of 5,667 people are receiving DTV only interference and the interference free population is 591,714. Exhibit 16 shows that with WXGA-DT, populations of 87,518 people are receiving DTV only interference and the interference free population is 509,863. Therefore, WXGA-DT causes [591,714 (IX free without WXGA-DT) – 509,863 (IX free with WXGA-DT) = 81,851] interference to a total of 81,851 people. Exhibits 15 and 16 calculated the WVAN-TV baseline population to be 638,334. Therefore, the total amount of unique interference caused by WXGA-DT is [81,851/638,334] 12.8%, which is not less than 2.0% and therefore does not comply with the 2% de minimis threshold requirement.

Exhibit A depicts the WVAN-TV interference free area that currently exists. Exhibit B depicts the WVAN-TV interference free area that currently exists with the Longley-rice coverage area of the surrounding GPTC stations (WCES-TV, WDCO-TV & WXGA-TV) being considered. As you can see,

[2] Unique interference is defined as the predicted interference a DTV station would cause beyond the amount of interference "built into" the DTV allotment table.

the surrounding GPTC station's combined Longley-Rice coverage actually fills in all the areas receiving interference within the WVAN-TV Grade B contour.

Exhibit C depicts the interference free area of WVAN-TV based on DTV Table of Allotment parameters and NTSC licenses. Exhibit D depicts the interference free area of WVAN-TV based on DTV Table of Allotment parameters and NTSC licenses with the Longley-rice coverage area of the three surrounding GPTC stations. As you can see, the surrounding GPTC station's combined Longley-Rice coverage fills in all the areas receiving interference within the WVAN-TV Grade B contour.

Exhibit E depicts the interference free area of WVAN-TV based on the enclosed WXGA-DT Channel 9 PFRM parameters and all applicable surrounding station's existing licenses, construction permits and/or allotments. Exhibit E, when compared to Exhibits A and C, shows that the proposed PFRM application does indeed cause additional interference to the WVAN-TV station.

Exhibit F depicts the interference free area of WVAN-TV based on the enclosed WXGA-DT Channel 9 PFRM parameters and all applicable surrounding station's existing licenses, construction permits and/or allotments with the Longley-rice coverage area of the three surrounding GPTC stations. As you can see, the surrounding GPTC station's combined Longley-Rice coverage significantly fills in a great deal of the areas predicted to receive interference within the WVAN-TV Grade B contour. The demographic studies calculated the following: 1) 34,443 people would be affected in the NE portion of the WVAN-TV Grade B contour; 2) 6,977 people would be affected in the SE portion of the WVAN-TV Grade B contour; and 3) 1,815 people would be affected in the midsection of the WVAN-TV Grade B contour where the three surrounding GPTC stations do not overlap.

Therefore, the predicted percentage of population within the WVAN-TV Grade B contour that would not be able to receive programming from the GPTC would only be 6.77% (43,235/638,334). Since the GPTC is the licensee of the station receiving 6.77% interference (WVAN-TV), the GPTC has documented and enclosed a letter with this application stating that they are willing to accept the interference from the proposed WXGA-DT station and therefore, request a waiver of the de minimis rules. The waiver is based on the fact that the public interest will be served and an interference acceptance letter has been enclosed.

Exhibit 15 concludes that the total interference caused to WVAN-TV (LIC) from all stations excluding WXGA-DT is [5,667/638,334] 0.89% ≤ 10% which demonstrates that WVAN-TV does not exceed the 10.0% maximum reception limit from all stations (except the proposed WXGA-DT which has written authorization from the licensee to cause the predicted 12.8% interference).

Exhibits 17 and 18 are studies showing interference from all stations to the W09CF (Class A eligible) station without and with WXGA-DT respectively. Exhibit 17 shows that without WXGA-DT, populations of 97,148 people are receiving DTV only interference and the interference free population is 64,661. Exhibit 18 shows that with WXGA-DT, populations of 97,148 people are receiving DTV only interference and the interference free population is still 64,661. Therefore, WXGA-DT causes [64,661 (IX free without WXGA-DT) – 64,661 (IX free with WXGA-DT) = 0.0] interference to a total of zero (0.0) people. Exhibits 17 and 18 calculated the W09CF baseline population to be 174,043. Therefore, the total amount of unique interference caused by WXGA-DT is [0.0/174,043] 0.0% ≤ 0.5% and thus, all requirements under the alternate methods of meeting requirements to protect Class A stations have been met. The alternate methods allow waiver requests that are supported by the following: 1) terrain shielding; 2) Longley-Rice propagation model; and 3) OET Bulletin 69 method with a 0.5% population reduction rounding tolerance.

The standard methods of protecting Class A stations using desired-to-undesired (D/U) ratios of §73.623 for "digital into analog." §73.623(c)(2) depicts the Co-channel DTV-into-Analog D/U ratio as +34dB. A desired Class A and/or Class A eligible Channel 9 station has a F(50,50) 68dBuV/m protected service contour. Therefore, a co-channel DTV undesired station would have a F(50,10) 34dBuV/m interfering contour (68-34=34). The proposed WXGA-DT Channel 9 F(50,10) 34dBuV/m interfering contour does overlap with the desired Class A eligible W09CF LPTV station's F(50,50) 68dBuV/m contour. Since the proposed WXGA-DT Channel 9 F(50,10) 34dBuV/m interfering contour does overlap the desired W09CF Class A eligible station's F(50,50) 68dBuV/m contour, a waiver is being requested based on the alternate methods authorized for waiver requests supported by terrain shielding, Longley-Rice propagation model interference studies and the OET Bulletin 69 method with a 0.5% population reduction rounding tolerance. As mentioned above and demonstrated in Exhibits 17 and 18, the proposed WXGA-DT complies with the alternate methods authorized for waiver requests.

Exhibits 19 and 20 are studies showing interference from all stations to the WFTV-TV (LIC) station without and with WXGA-DT respectively. Exhibit 19 shows that without WXGA-DT, populations of 27,942 people are receiving DTV only interference and the interference free population is 2,147,039. Exhibit 20 shows that with WXGA-DT, populations of 32,018 people are receiving DTV only interference and the interference free population is 2,142,963. Therefore, WXGA-DT causes [2,147,039 (IX free without WXGA-DT) – 2,142,963 (IX free with WXGA-DT) = 4,076] interference to a total of 4,076 people. Exhibits 19 and 20 calculated the WFTV-TV baseline population to be 2,493,835. Therefore, the total amount of unique interference caused by WXGA-DT is [4,076/2,493,835] 0.163% ≤ 2.0% and thus, all requirements under the definition of *de minimis* have been met. Exhibit 20 concludes that the total interference caused to WFTV-TV from all stations including WXGA-DT is [32,018/2,493,835] 1.28% ≤ 10% and thus, all requirements under the definition of the *10% de-minimis* standard have been met.

Exhibits 21 and 22 are studies showing interference from all stations to the WALB-TV (LIC) station without and with WXGA-DT respectively. Exhibit 21 shows that without WXGA-DT, populations of 18,321 people are receiving DTV only interference and the interference free population is 527,631. Exhibit 22 shows that with WXGA-DT, populations of 18,809 people are receiving DTV only interference and the interference free population is 527,143. Therefore, WXGA-DT causes [527,631 (IX free without WXGA-DT) – 527,143 (IX free with WXGA-DT) = 488] interference to a total of 488 people. Exhibits 21 and 22 calculated the WALB-TV baseline population to be 594,518. Therefore, the total amount of unique interference caused by WXGA-DT is [488/594,518] 0.082% ≤ 2.0% and thus, all requirements under the definition of *de minimis* have been met. Exhibit 22 concludes that the total interference caused to WALB-TV from all stations including WXGA-DT is [18,809/594,518] 3.16% ≤ 10% and thus, all requirements under the definition of the *10% de-minimis* standard have been met.

Exhibits 23 and 24 are studies showing interference from all stations to the WPXG-DT PFRM application without and with WXGA-DT respectively. Exhibit 23 shows that without WXGA-DT, populations of 66,798 people are receiving DTV only interference and the interference free population is 318,610. Exhibit 24 shows that with WXGA-DT, populations of 66,798 people are receiving DTV only interference and the interference free population is still 318,610. Therefore, WXGA-DT causes [318,610 (IX free without WXGA-DT) – 318,610 (IX free with WXGA-DT) = 0.0] interference to a total of zero (0.0) people. Exhibits 23 and 24 calculated the WPXG-DT (PFRM APP) baseline population to be 412,011. Therefore, the total amount of unique interference caused by WXGA-DT is [0.0/412,011] 0.0%

≤ 2.0% and thus, all requirements under the definition of *de minimis* have been met. Exhibit 24 concludes that the total interference caused to WPXG-DT (PFRM APP) from all stations including WXGA-DT is [66,798/412,011] 16.2% which is not less than or equal to 10% but the proposed WXGA-DT does not contribute additional interference (0.0%) to the WPXG-DT PFRM application and therefore, has complied with the *de-minimis* requirements (not to mention that WPXG-DT is still only a pending application).

Exhibits 25 and 26 are studies showing interference from all stations to the WACX-LP (Class A Eligible) station without and with WXGA-DT respectively. Exhibit 25 shows that without WXGA-DT, populations of 45,063 people are receiving DTV only interference and the interference free population is 33,674. Exhibit 26 shows that with WXGA-DT, populations of 45,063 people are receiving DTV only interference and the interference free population is still 33,674. Therefore, WXGA-DT causes [33,674 (IX free without WXGA-DT) – 33,674 (IX free with WXGA-DT) = 0.0] interference to a total of zero (0.0) people. Exhibits 25 and 26 calculated the WACX-LP (Class A Eligible) baseline population to be 76,103. Therefore, the total amount of unique interference caused by WXGA-DT is [0.0/76,103] 0.0% ≤ 0.5% and thus, all requirements under the alternate methods of meeting requirements to protect Class A stations have been met. The alternate methods allow waiver requests that are supported by the following: 1) terrain shielding; 2) Longley-Rice propagation model; and 3) OET Bulletin 69 method with a 0.5% population reduction rounding tolerance.

Exhibit 27 applied the standard methods of protecting Class A stations using desired-to-undesired (D/U) ratios of §73.623 for "digital into analog." §73.623(c)(2) depicts the Co-channel DTV-into-Analog D/U ratio as +34dB. A desired Class A and/or Class A eligible Channel 9 station has a F(50,50) 68dBuV/m protected service contour. Therefore, a co-channel DTV undesired station would have a F(50,10) 34dBuV/m interfering contour (68-34=34). Exhibit 27 substantiates that the proposed WXGA-DT Channel 9 F(50,10) 34dBuV/m interfering contour does not overlap with the desired Class A eligible WACX LPTV station's F(50,50) 68dBuV/m contour, hence, the proposed WXGA-DT Channel 9 complies with the standard methods of protecting Class A stations and a waiver is not needed.

Exhibits

Exhibits 1 and 2 represent WXGA-DT's administration data, antenna and antenna structure specifications as per §V-D item 9 in the DTV Broadcasting Engineering Data portion of the application regarding directional antennas and beam tilt.

Exhibit 3 depicts the profile view of the proposed antenna on the antenna structure with all the appropriate elevations as per §V-D item 8 in the DTV Broadcasting Engineering Data portion of the application regarding supporting structures and elevations.

Exhibits 4 and 5 display the azimuth pattern and the azimuth pattern tabulation respectively.

Exhibits 6 and 7 display the elevation pattern and the elevation pattern tabulation respectively.

Exhibits 8 and 9 display the ERP/dBk pattern and tabulation respectively.

Exhibit 10 depicts the site location of the proposed WXGA-DT site on a 7.5-Minute (Series) Topographic Map as per §V-D item 17 in the DTV Broadcasting Engineering Data portion of the application regarding topographic maps.

Exhibit 11 depicts the proposed WXGA-DT coverage contour, boundaries of the principal community to be served, and the proposed transmitting location with radials every 45° as per §V-D item 18 in the DTV Broadcasting Engineering Data portion of the application regarding Sectional Aeronautical Charts.

Exhibits 12 through 27 are detailed interference studies and demographic results of WXGA-DT to all applicable stations.

Environmental Impact

The proposed construction will have no significant environmental impact as defined in §1.1307 of the FCC Rules. The DTV transmitter, 1-5/8 inch (50-ohm) transmission line and antenna system will produce an ERP of 20kW. Assuming that the maximum lobe of radiation is oriented at the base of the tower, it will produce a power density six feet above the ground of 0.009 mW/cm^2. This is only 0.90% of the maximum permissible exposure (MPE) authorized by the American National Standards Institute (ANSI). Since the proposed operation of WXGA-DT Channel 9 will not exceed 5.0% of the MPE limit for population/uncontrolled at any point on the ground, WXGA-DT is not considered to be a "significant contributor" to the RF exposure environment pursuant to OET Bulletin 65, Edition 97-01. Therefore, contributions of exposure from other sources were not accounted for in this analysis. It is safe to conclude that the emissions will be insignificant and well within the maximum allowable requirements.

If other antennas are placed on the tower in the future, the applicant will cooperate with those users by reducing or completely terminating the power to the antenna when maintenance workers are in danger from the electromagnetic radiation emanating from the antenna. The tower will be enclosed within a fence with warning signs posted at the locked gate.

Certification

The applicant accepts full responsibility for the elimination of any objectionable interference including that caused by intermodulation to facilities in existence or authorized prior to the grant of this application.

This technical statement was prepared by William T. Godfrey, Telecommunications Consultant with Kessler and Gehman Associates, Inc. having offices in Gainesville, Florida and has been working in the field of radio and television broadcast consulting since 1998. He graduated from the University of North Florida with a Bachelor of Arts degree in Criminal Justice and a minor in Mathematics and received a Commission in the Aviation Branch of the United States Army in 1993. As a Professional in the field of Telecommunications and as a Captain in the United States Army, he states under penalty of perjury that the information contained in this report is true and correct to the best of his knowledge and belief.

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KESSLER AND GEHMAN ASSOCIATES, INC.

WILLIAM T. GODFREY
Telecommunications Consultant

19 March, 2001